



BURLINGTON ENVIRONMENTAL

A Philip Environmental Company

CERTIFIED MAIL

November 2, 1994

Mr. Galen Tritt
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Dear Mr. Tritt:

As required by WAC 173-303-620(3)(d), enclosed is the latest closure cost estimate for the Burlington Environmental Pier 91 Facility. WAC 173-303-620(c) requires the cost estimates to be adjusted within sixty days prior to the anniversary date of the establishment of the closure trust fund. The anniversary date of the closure trust fund for Burlington's facilities is January 1; sixty days prior to the anniversary date is November 2. The mechanism of Burlington's closure trust fund requires that the current deposit be made into the fund within 30 days of the anniversary date, or by January 31. Documentation of financial assurance for the existing dangerous waste management units at the Pier 91 Facility will be available at approximately that time.

WAC 173-303-620(c) also specifies that the adjustment to the closure costs for inflation to be made by either recalculating the costs in current dollars, or by using an inflation factor obtained from the most recent Implicit Price Deflator for Gross National Product. Burlington has chosen this year to recalculate the closure costs based on current dollars rather than use the inflation factor. Attached are revised Tables I3-1, I3-2, I3-3, and I3-4 for Section I, Attachment HH, plus additional inventory elimination contingency costs to illustrate the new costs.

In reviewing the closure plan for the Pier 91 Facility, Burlington used current costs for treatment, transport, and disposal, for PPE costs, and for sample analysis costs, based on prices obtained from vendors. Prices for third-party labor have remained costs found in the Guidance Manual, inflated from 1986 using appropriate inflation factors.

Inventory elimination scenarios have also been reviewed and altered as necessary to ensure they reflect current waste treatment and disposal practices. All of these revisions are also reflected in the attached revised tables. Therefore, enclosed is a class 1 permit modification request for the Burlington Environmental Inc. Pier 91 Facility.



Black River Technical Center
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Mr. Galen Tritt
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As required by WAC 173-303-830(4)(b)(ii), a public notice of the modification request will be sent to all persons on the facility mailing list within 90 days of this request. Please contact me at (206) 227-7524 if you have any questions regarding this.

Sincerely,



Keith Lund
Senior Environmental Compliance Specialist

cc: Ms. Carrie Sikorski, EPA Region 10
Gerald Lenssen, Ecology HQ



TABLE I3-1. COST ESTIMATES REFLECTING CLOSURE AT MAXIMUM WASTE INVENTORY

ITEM DESCRIPTION	COST (1994 \$)
Inventory elimination (tanks)	\$259,496
Additional inventory elimination contingency costs ^(a)	\$46,581
Tank decontamination incl. pump/piping decontamination	\$60,188
Process equipment decontamination	\$157
Secondary containment structures decontamination	\$25,107
Heavy equipment decontamination	\$124
Rinsate treatment and disposal ^(a)	\$33,757
Sampling/analysis (concrete and soils)	\$55,516
Personal protective equipment	\$1,400
Engineering certification	\$16,428
SUBTOTAL	\$498,754
Contingency (10%)	\$49,875
MAXIMUM WASTE INVENTORY CLOSURE COST ESTIMATE	\$548,629

^(a) Contingency costs are added to recognize the possibility of on-site treatment capacity being unavailable at the time of closure

TABLE I3-2. INVENTORY ELIMINATION COSTS

Sheet 1 of 3

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
<u>A1. Oil and coolant emulsions</u>			
	260,335 gal		
phenolic treatment	260,335 gal	\$0.08 /gal	\$20,827
demulsification	260,335 gal	\$0.04 /gal	\$10,413
heat treatment	260,335 gal	\$0.04 /gal	\$10,413
Cr + 6 reduction	13,017 gal	\$0.01 /gal	\$130
to DW fuels:	260,335 gal x 10% = 26,034 gal		
loading/transport	26,034 gal	\$0.05 /gal	\$1,302
rail transport	26,034 gal	\$0.30 /gal	\$7,810
disposal	26,034 gal	\$0.25 /gal	\$6,509
wastewater treatment:	260,335 gal x 90% = 234,302 gal		
pH adjust	234,302 gal	\$0.07 /gal	\$16,401
discharge:	234,302 gal x 89% = 208,529 gal		
sludge treatment:	234,302 gal x 11% = 25,773 gal		
wastewater treatment:	25,773 gal x 40% = 10,309 gal		
pH adjust	10,309 gal	\$1.07 /gal	\$11,031
stabilization:	25,773 gal x 60% = 15,464 gal		
loading	15,464 gal	\$0.01 /gal	\$155
	15,464 gal x 10 lb/gal x ton/2,000 lb = 77 tons		
transport	77 tons	\$250 /20 tons	\$963
expansion:	15,464 gal + 20% = 18,557 gal		
	18,557 gal x 10 lb/gal x ton/2,000 lb = 93 tons		
stabilize/disposal	93 tons	\$247 /20 tons	\$1,149
SUBTOTAL =			\$87,103

A2. Phenolic wastewater

	14,810 gal		
phenolic treatment	14,810 gal	\$0.08 /gal	\$1,185
heat treatment	14,810 gal	\$0.04 /gal	\$592
pH adjust	14,810 gal	\$0.70 /gal	\$10,367
sludge treatment:	14,810 gal x 40% = 5,924 gal		
pH adjust	5,924 gal	\$0.70 /gal	\$4,147

TABLE I3-2. INVENTORY ELIMINATION COSTS

Sheet 2 of 3

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
stabilization:	14,810 gal x 60% = 8,886 gal		
loading	8,886 gal	\$0.01 /gal	\$89
	8,886 gal x 10 lb/gal x ton/2,000 lb = 44 tons		
transport	44 tons	\$250 /20 tons	\$550
expansion:	8,886 gal + 20% = 10,663 gal		
	10,663 gal x 10 lb/gal x ton/2,000 lb = 53 tons		
stabilize/disposal	53 tons	\$247 /20 tons	\$655
SUBTOTAL =			\$106,800

A3. Industrial Wastewaters

	385,996 gal		
pH adjustment	385,996 gal	\$0.07 /gal	\$27,020
discharge:	385,996 gal x 89% = 208,529 gal		
on-site treatment:	385,996 gal x 11% = 42,460 gal		
wastewater treatment:	42,460 gal x 40% = 16,984 gal		
pH adjustment	16,984 gal	\$0.07 /gal	\$1,189
stabilization:	42,460 gal x 60% = 25,476 gal		
loading	25,476 gal	\$0.01 /gal	\$255
	25,476 gal x 10 lb/gal x ton/2,000 lb = 127 tons		
transport	127 tons	\$250 /20 tons	\$1,588
expansion:	25,476 gal + 20% = 30,571 gal		
	30,571 gal x 10 lb/gal x ton/2,000 lb = 153 tons		
stabilize/disposal	153 tons	\$247 /20 tons	\$1,890
SUBTOTAL =			\$31,942

A4. Industrial waste sludge

	14,810 gal		
wastewater treatment:	14,810 gal x 40% = 5,924 gal		
pH adjustment	5,924 gal	\$0.07 /gal	\$415
stabilization:	14,810 gal x 60% = 8,886 gal		
loading	8,886 gal	\$0.01 /gal	\$89
	8,886 gal x 10 lb/gal x ton/2,000 lb = 44 tons		
transport	44 tons	\$250 /20 tons	\$550
expansion:	8,886 gal + 20% = 10,663 gal		

TABLE I3-2. INVENTORY ELIMINATION COSTS

Sheet 3 of 3

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
	10,663 gal x 10 lb/gal x ton/2,000 lb = 53 tons		
stabilize/disposal	53 tons	\$247 /20 tons	\$655
SUBTOTAL =			\$33,651

GRAND TOTAL MAXIMUM WASTE INVENTORY

ELIMINATION COST = \$259,496

INVENTORY ELIMINATION CONTINGENCY COSTS

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
<u>BA1. Oil and coolant emulsions:</u>	260,335 gal		
To Kent Facility:			
loading	260,335 gal	5,000 gal/hr \$30 /man-hr	\$1,562
transport	260,335 gal	\$250 /5,000 gal	\$13,017
SUBTOTAL =			\$14,579
<u>BA2. Phenolic wastewaters:</u>	14,810 gal		
To Kent Facility:			
loading	14,810 gal	5,000 gal/hr \$30 /man-hr	\$89
	14,810 gal x 10 lb/gal x ton/2,000 lb = 74 tons		
transport	74 tons	\$284 /20 ton	\$1,051
SUBTOTAL =			\$1,140
<u>BA3. Industrial wastewater:</u>	385,990 gal		
To Kent Facility:			
loading	385,990 gal	5,000 gal/hr \$30 /man-hr	\$2,316
	385,990 gal x 10 lb/gal x ton/2,000 lb = 1,930 tons		
transport	1,930 tons	\$284 /20 ton	\$27,406
SUBTOTAL =			\$29,722
<u>BA4. Waste sludge:</u>	14,810 gal		
To Kent Facility:			
loading	14,810 gal	5,000 gal/hr \$30 /man-hr	\$89
	14,810 gal x 10 lb/gal x ton/2,000 lb = 74 tons		
transport	74 tons	\$284 /20 ton	\$1,051
SUBTOTAL =			\$1,140
TOTAL CONTINGENCY COSTS FOR INV. ELIMINATION =			\$46,581

TABLE 13-3. FACILITY DECONTAMINATION COSTS

Sheet 1 of 2

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Tank decontamination	675,950 gal	\$0.087 /gal	\$58,808
Centrifuge decontamination:			
decontamination	85 ft ²	\$1.09 /ft ²	\$93
labor	85 ft ³	40 ft ² /hr	\$64
		\$30 /man-hr	
Pumps and piping decontamination:	12 pumps	\$115 /pump	\$1,380
Secondary containment structures decontamination:			
concrete washing	13,645 ft ²	\$1.09 ft ²	\$14,873
labor	13,645 ft ²	40 ft ² /hr	\$10,234
		\$30 /man-hr	
Heavy equipment:	2 forklifts	\$32 /forklift	\$124
labor		\$30 /man-hr	
Rinsate treatment and disposal:			
Wastewater:	158,294 gal for on-site treatment		
pH adjust	158,294 gal	\$0.07 /gal	\$11,081
to discharge:	158,294 gal x 89% = 140,882 gal		
water treatment:	158,294 gal x 11% = 17,412 gal		
wastewater:	17,412 gal x 40% = 6,965 gal		
pH adjustment	6,965 gal	\$0.07 /gal	\$488
stabilization:	17,412 gal x 60% = 10,447 gal		
loading	10,447 gal	\$0.01 /gal	\$63
	10,447 gal x 10 lb/gal x ton/2,000 lb = 52 tons		
transport	52 tons	\$250 /20 tons	\$650
expansion:	10,447 gal + 20% = 12,583 gal		
	12,536 gal x 10 lb/gal x ton/2,000 lb = 63 tons		
stabilize/disposal	63 tons	\$247 /20 tons	\$778
SUBTOTAL =			\$13,060

TABLE 13-3. FACILITY DECONTAMINATION COSTS

Sheet 2 of 2

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Additional contingency costs for off-site wastewater treatment:			
	158,294 gal		
loading	158,294 gal	5,000 gal/hr \$30 /man-hr	\$950
transport	158,294 gal	\$250 /5,000 gal	\$7,915
SUBTOTAL =			\$8,865
Off-site treatment:	8,856 gal		
loading	8,856 gal	5,000 gal/hr \$30 /man-hr	\$53
transport	2 trucks	\$250 /5,000 gal	\$1
off-site treatment	8,856 gal	\$1.33 /gal	\$11,778
SUBTOTAL =			\$11,832
TOTAL RINSATE TREATMENT AND DISPOSAL COST =			\$33,757
TOTAL FACILITY DECONTAMINATION COSTS:			\$119,333

TABLE I3-4. SAMPLING AND ANALYTICAL COSTS

Sheet 1 of 4

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
<u>Concrete samples - collection</u>	35 samples	\$26 /sample	\$910
<u>Concrete samples - analysis</u>			
Existing dangerous waste tank system	17 samples (inc. 13 sump)	\$714 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$12,138
Central area of dangerous waste tank system	6 samples	\$714 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$4,284
Load/unload pump area	2 samples (inc. 2 sumps)	\$714 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$1,428
Temporary container storage area	2 samples (inc. 1 sump)	\$714 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$1,428

TABLE I3-4. SAMPLING AND ANALYTICAL COSTS

Sheet 2 of 4

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Load/unload pad	2 samples (inc. 1 sump)	\$714 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$1,428
Selected cracks or stains (est.)	6 samples	\$714 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$4,284
TOTAL, CONCRETE SAMPLE ANALYSIS			\$24,990
<u>Soil samples - collection</u>			
containment area soil samples	60 samples	\$26 /sample	\$1,560
<u>Soil samples - analysis</u>			
Dangerous waste tank system	13 samples (sumps)	\$699 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$9,087
Load/unload pump pad	1 biased sample	\$699 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$699

TABLE I3-4. SAMPLING AND ANALYTICAL COSTS

Sheet 3 of 4

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Temporary container storage area	1 biased sample (sump)	\$699 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$699
Load/unload pad	1 biased sample (sump)	\$699 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$699
Dangerous waste tank system - 30 random samples composited at 3:1 ratio (10 analyses total)	10 samples	\$534 /sample for semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$5,340
	30 random ² samples	\$165 /sample for volatiles	\$4,950
Load/unload pump pad - 3 random samples composited at 3:1 ratio (1 analysis total)	1 sample	\$534 /sample for semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$534
	3 random ² samples	\$165 /sample for volatiles	\$495

TABLE I3-4. SAMPLING AND ANALYTICAL COSTS

Sheet 4 of 4

ITEM DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Temporary container storage area - 3 random samples composited at 3:1 ratio (1 analysis total)	1 sample	\$534 /sample for semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$534
	3 random ² samples	\$165 /sample for volatiles	\$495
Load/unload pad - 3 random samples composited at 3:1 ratio (1 analysis total)	1 sample	\$534 /sample for semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$534
	3 random ² samples	\$165 /sample for volatiles	\$495
Selected cracks and stains (estimated, under tank systems and container storage containment areas)	5 biased samples	\$699 /sample for volatiles, semi-volatiles, total metals, PCBs, sulfide, total petroleum hydrocarbons, and pH ¹	\$3,495
TOTAL, SOIL SAMPLE ANALYSIS			\$28,056
TOTAL SAMPLING & ANALYSIS COSTS			\$55,516



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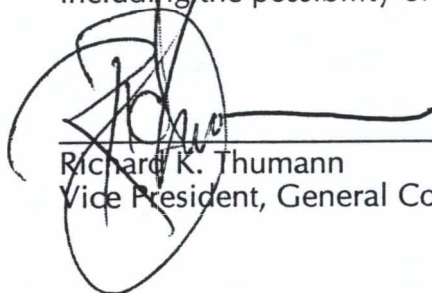
November 2, 1994

Part B Permit Modification WAMOD6-1

As required by WAC 173-303-810(12) and (13), Burlington Environmental Inc. is providing the following certification statement for permit modification request WAMOD6-1 for the Burlington Pier 91 Facility. If you have any questions regarding this matter, please contact Peter Ressler at (206) 227-7522 or Keith Lund at (206)-227-0311.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Richard K. Thumann
Vice President, General Counsel

Date 11/2/94



Pier 91 Facility Part B Permit Modification

Title: Revisions to Inventory Elimination Scenarios for Closure

Modification Number: P91MOD6-1

Submitted: 11/2/94

Summary Description:

This modification revises inventory elimination scenarios for final closure of the facility to ensure they reflect current waste treatment and disposal practices. The extent of the maximum waste inventory has not changed, nor has the closure schedule, the expected year of final closure, procedures for decontamination, or the closure performance standards.

Modification Class:

As described in WAC 173-303-830(4)(d)(ii)(A), the appropriate classification for this modification is a Class 1. This request is being made to make minor changes to keep the permit current with routine changes to the facility or its operation. This modification does not substantially alter the permit conditions nor reduce the capacity of the facility to protect human health and the environment.

Detailed Description:

WAC 173-303-610(3)(a)(iv) requires that a closure plan include a detailed description of the methods used for removing, transporting, treating, storing, or disposing of all dangerous wastes. The closure plan for the Pier 91 Facility assumes that on-site treatment will be available, and uses actual costs for treatment, transport, and disposal of all dangerous wastes on-site at the maximum extent of operations.

This modification revises the scenarios for the treatment, transport, and disposal of dangerous wastes at the facility to reflect current waste treatment and disposal practices.

Backup Technical Documents:

None

List of Affected Sections:

The following list outlines the text, tables, and figures in the Part B permit and its attachments that will be affected by this modification.

Permit:

None

Technical Center

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(206) 227-0311 • FAX: (206) 227-6191



Permit Attachments:

Attachment HH

Section I

Table I3-2

Closure Plan and Closure Cost Estimates
Inventory Elimination Costs

Appendix I-2

Closure Cost Calculations for Maximum Waste Inventory

